

# Washington State Department of Transportation

## Report to the Legislature

### WSDOT's Watershed Approach

## Background

In 1994 the Environmental Cost Savings and Permit Coordination Study was conducted on behalf of the Washington State Legislative Transportation Committee (LTC). Within the general context of permit efficiencies and cost savings, the study addressed several issues related to compensatory mitigation, wetlands banking, and a watershed approach to environmental impact mitigation. Six focus areas emerged from the study as potentially significant methods to reduce the costs of environmental compliance and mitigation related to transportation projects. One of these focus points specifically recommended that “environmental impacts and reasonable mitigation measures be considered on a geographic or watershed basis”. In response to the LTC Report, the Environmental Affairs Office (EAO) committed to develop and institute a watershed approach, which could be applied to the planning, programming, and delivery of transportation projects. Work towards that goal has been ongoing since 1996. This report provides a brief synopsis of major milestones of that process during the past three years.

## Purpose

Traditionally, WSDOT has mitigated project impacts on a case-by-case basis. This approach offers minimal opportunity to work with watershed stakeholders to plan, design, and construct transportation mitigation projects so that they contribute to, or compliment, top priority watershed and salmon recovery projects. Site-by-site mitigation also reduces the likelihood of WSDOT entering into cooperative cost-share projects with stakeholders, and increases the likelihood of investing the Department's mitigation dollars in less than optimal improvement sites.

The watershed approach offers a comprehensive strategy that incorporates a holistic approach to the management of environmental impacts related to transportation projects. The watershed approach offers a framework to coordinate and integrate transportation development and maintenance activities with the implementation of watershed recovery efforts while working to prevent further degradation to natural resources within the watershed. The watershed approach facilitates cost-share opportunities through increased project coordination between non-compensatory watershed improvement projects and compensatory mitigation activities.

The watershed approach is also integral to supporting the Department's environmental streamlining activities and implementation of the TEA-21 message in the *Environmental Streamlining & Interagency Cooperation on the Environment and Transportation Agreement*. Recognizing that there are 27 Federal, 19 State, and 7 Local Government environmental regulations affecting transportation work, all of which are updated and revised on a periodic schedule, WSDOT significantly increased its participation in interagency policy, rulemaking,

and legislative forums. Many of the forums focus specifically on watershed management, salmon recovery, and project funding for watershed recovery efforts. The Department's investments in research, technical and policy experts, along with the continued integration of environmental stewardship and a watershed-based approach to resource management within the agency has postured WSDOT to be a leader in implementing streamlining initiatives.

## Discussion

EAO's watershed approach can be defined as a way of implementing transportation projects that takes a holistic approach by:

1. Considering how the project may impact hydrologic functions, the wildlife habitat, and the human community within the watershed.
2. Seeking to avoid, minimize, or mitigate for environmental impacts in ways that maximize the benefit to the watershed as a whole, while facilitating project delivery and reducing costs.

This is accomplished by acting as an agency of government through participation in decision-making regarding the content and application of environmental regulations and by coordinating and sharing data with other government agencies. Through the watershed-based collaborative approach, the resource and regulatory agencies are finding themselves together at the same table with EAO. They are learning about each other's organizational needs as they develop solutions together. The Department as a whole has shifted to viewing mitigation as a way of partnering with other entities, rather than just an obligation needed to meet a permit requirement. This approach has led to efforts to build toward sustainability, streamlining, and common goals.

Federal partners, FHWA and EPA, have assisted WSDOT by helping to fund development of several environmental initiatives within EAO, which embrace a watershed approach. The coordination of these initiatives provides a holistic approach to transportation-related environmental concerns. These initiatives have resulted in several partnerships with natural resource agencies. These initiatives are:

- Wetlands Strategic Plan/Wetland Banking
- Stormwater Grant Program
- Capital Budget Coordination
- Fish Passage Barrier Removal Program
- Advanced Environmental Mitigation Revolving Account (AEMRA)
- Flood Management Strategy
- Federal Planning (NEPA Re-Invent National Pilot Lead)
- Alternative Mitigation Policy Guidance
- Environmental Cost-Benefit

Each of these strategies are based firmly on a watershed approach. The goal of the Wetland Strategic Plan Implementation (WSPI), for example, was to develop a strategic plan to apply a watershed approach in the selection of wetland preservation and mitigation sites, develop incentives for other agencies to participate in joint mitigation projects, measure wetland functions, and build strategies for wetland banking.

The goal of the Stormwater Grant Program is to partner with local government to find innovative ways for WSDOT to meet obligations to maintain or improve water quality within a watershed that has been affected by stormwater runoff.

The Capital Budget Program goal is to reduce state construction costs of transportation projects and maximize environmental benefits by linking projects funded by the Capital Budget with WSDOT mitigation needs.

The goal of the Fish Passage Barrier Removal Program is to work with WDFW to restore habitat by resolving fish passage problems and to create a means to link the barrier removal program to comprehensive watershed management.

The goal of AEMRA is to allow WSDOT to capitalize an Advanced Environmental Mitigation Revolving Account to purchase and develop mitigation sites that meet environmental permit requirements before transportation projects have been designed and built. This speeds the delivery of transportation projects and saves taxpayer money by eliminating costly delays. It also provides maximum environmental benefit within the watershed by selecting the highest priority site for mitigation.

The goal of Flood Management Strategy is to promote a watershed-based planning and management approach to create permanent solutions to chronic flooding problems that affect state highway facilities. This proactive approach protects vital human communities as well as protecting existing structures and wildlife habitat, which saves restoration time and money.

The NEPA Process Improvement goal is to blend water quality, habitat restoration, endangered species, and other ecosystem and community concerns into the early stages of the transportation project planning process. This avoids costly delays and redesigning projects.

The Alternative Mitigation Policy Guidance is a tool to define permitting expectations for mitigation associated with aquatic resource impacts. The policy guidance defines elements to be considered in mitigation proposals requiring the Departments of Fish and Wildlife or Ecology permits. The policy guidance specifically addresses criteria for off-site and/or out-of-kind mitigation proposals, and requires consideration of watershed related elements in the development and approval of such proposals.

WSDOT hired an environment resource economist to help better define the benefits and costs associated with mitigation options and environmental retrofit opportunities within the agency. Data and policy direction provided by the economist will help guide future mitigation investments in the watershed, and help prioritize and coordinate WSDOT's environmental retrofit opportunities with the state's watershed management goals.

## **Recommendations & Summary**

The watershed approach has provided benefit to Transportation by:

- Developing statewide policies to address alternative mitigation,
- Increasing flexibility in project permitting and delivery,
- Reducing costs through partnerships with other state and local agencies,
- Facilitating and supporting habitat protection and restoration efforts,
- Increasing the public's awareness of their watersheds and inspiring public confidence in WSDOT's programs, and
- Contributing to watershed management and salmon recovery practices.

EAO should continue to:

- Maintain a multiple objective approach that balances watershed concerns with transportation development needs,
- Employ sound watershed management practices based on scientific data,
- Share information and develop a common understanding of the roles and responsibilities of all participants in the watershed management process,
- Work to improve environmental data management among federal, state, and local agencies, and
- Support GIS-based approaches for data management, analysis, project planning and project coordination.

WSDOT has recognized that efficiencies can be obtained by directing its mitigation expenditures towards high priority watershed recovery sites, where appropriate. In order to continue to achieve this objective, site selection and evaluation must be approached from a watershed perspective. The programs, pilot projects, capacity building, and tools developed during the past three years provides an excellent foundation for continuing to integrate a watershed approach into the delivery of future transportation projects in Washington State.

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